



State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
Bay Delta Region
2825 Cordelia Road, Suite 100
Fairfield, CA 94534
(707) 428-2002
www.wildlife.ca.gov

GAVIN NEWSOM, Governor
CHARLTON H. BONHAM, Director



June 3, 2025

Taylor Bateman
City of Scotts Valley
1 Civic Center Drive
Scotts Valley, CA 95066
Planningdepartment@scottsvalley.gov

Subject: Scotts Valley Town Center Specific Plan Update, Notice of Preparation of a Draft Environmental Impact Report, SCH No. 2025050499, City of Scotts Valley, Santa Cruz County

Dear Taylor Bateman:

The California Department of Fish and Wildlife (CDFW) has reviewed the City of Scotts Valley's (City) Notice of Preparation (NOP) of a draft Environmental Impact Report (EIR) for the Scotts Valley Town Center Specific Plan Update (Project) pursuant the California Environmental Quality Act (CEQA) and CEQA Guidelines.¹

Thank you for the opportunity to provide comments and recommendations regarding those activities involved in the Project that may affect fish and wildlife resources of the State. Please be advised by law, CDFW may be required to carry out or approve aspects of the Project through the exercise of its own regulatory authority under the Fish and Game Code.

CDFW is providing the City, as the Lead Agency, with specific detail about the scope and content of the environmental information related to CDFW's area of statutory responsibility that must be included in the EIR (Cal. Code Regs., tit. 14, § 15082, subd. (b)).

CDFW ROLE

CDFW is California's **Trustee Agency** for fish and wildlife resources and holds those resources in trust by statute for all the people of the State. (Fish & G. Code, §§ 711.7, subd. (a) & 1802; Pub. Resources Code, § 21070; CEQA Guidelines § 15386, subd. (a).) CDFW, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species. (*Id.*, § 1802.). For purposes of CEQA, CDFW is charged by law to provide biological expertise during public agency environmental

¹ CEQA is codified in the California Public Resources Code in section 21000 et seq. The "CEQA Guidelines" are found in Title 14 of the California Code of Regulations, commencing with section 15000.

Taylor Bateman
City of Scotts Valley
June 3, 2025
Page 2

review efforts, focusing specifically on projects and related activities that have the potential to adversely affect fish and wildlife resources.

CDFW is also submitting comments as a **Responsible Agency** under CEQA. (Pub. Resources Code, § 21069; CEQA Guidelines, § 15381.) CDFW expects that it may need to exercise regulatory authority over the Project pursuant to the Fish and Game Code. For example, the Project may be subject to CDFW's Lake and Streambed Alteration (LSA) regulatory authority, if the Project impacts the bed, channel or bank of any river, stream or lake within the State (Fish & G. Code, § 1600 et seq.). Likewise, to the extent the Project may result in "take" as defined by State law of any species protected under the California Endangered Species Act (CESA) (Fish & G. Code, § 2050 et seq.), the Project proponent may seek related take authorization as provided by the Fish and Game Code.

REGULATORY REQUIREMENTS

California Endangered Species Act

A CESA Incidental Take Permit (ITP) must be obtained from CDFW if the Project has the potential to result in "take" of plants or animals listed under CESA, either during construction or over the life of the Project. Under CESA, "take" means "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." (Fish & G. Code, § 86.) CDFW's issuance of an ITP is subject to CEQA and to facilitate permit issuance, any project modifications and mitigation measures must be incorporated into the CEQA document analysis, discussion, and mitigation monitoring and reporting program. If the Project will impact CESA listed species, early consultation is encouraged, as significant modification to the Project and mitigation measures may be required in order to obtain a CESA permit.

CEQA requires a mandatory finding of significance if a project is likely to substantially impact threatened or endangered species. Pub. Resources Code, §§ 21001, subd. (c) & 21083; CEQA Guidelines, §§ 15380, 15064 & 15065.) In addition, pursuant to CEQA, the Lead Agency cannot approve a project unless all impacts to the environment are avoided or mitigated to less-than-significant levels, or the Lead Agency makes and supports Findings of Overriding Consideration for impacts that remain significant despite the implementation of all feasible mitigation. FOC under CEQA, however, do not eliminate the Project proponent's obligation to comply with the Fish and Game Code.

Lake and Streambed Alteration

CDFW requires an LSA Notification, pursuant to Fish and Game Code section 1600 et seq., for Project activities affecting river, lakes or streams and associated riparian habitat. Notification is required for any activity that may substantially divert or obstruct the natural flow; change or use material from the bed, channel, or bank (including

Taylor Bateman
City of Scotts Valley
June 3, 2025
Page 3

associated riparian or wetland resources); or deposit or dispose of material where it may pass into a river, lake, or stream. Work within ephemeral streams, drainage ditches, washes, watercourses with a subsurface flow, and floodplains is generally subject to notification requirements. In addition, infrastructure installed beneath such aquatic features, such as through hydraulic directional drilling, is also generally subject to notification requirements. Therefore, any impact to the mainstems, tributaries, or floodplains or associated riparian habitat caused by the proposed Project will likely require an LSA Notification. CDFW may not execute a final LSA Agreement until it has considered the final EIR and complied with its responsibilities as a responsible agency under CEQA.

Migratory Birds and Raptors

CDFW has authority over actions that may result in the disturbance or destruction of active bird nest sites or the unauthorized take of birds. Fish and Game Code sections protecting birds, their eggs, and nests include section 3503 (regarding unlawful take, possession, or needless destruction of the nests or eggs of any bird), section 3503.5 (regarding the take, possession, or destruction of any birds-of-prey or their nests or eggs), and section 3513 (regarding unlawful take of any migratory nongame bird). Migratory birds are also protected under the federal Migratory Bird Treaty Act.

PROJECT DESCRIPTION AND LOCATION SUMMARY

Proponent: City of Scotts Valley

Objective: The objective of the Project is to create a vision, policies, and objective standards to guide new development within the Scotts Valley Town Center Specific Plan area (Plan area) in a way that supports existing and new businesses, residents, and the overall community. The Plan would manage and direct changes in development patterns within the Plan area through 2045 and guide present and future land uses, development intensity and scale, urban design, economic development, circulation management and mobility, infrastructure and public services, and community benefits. The Project will allow for up to 657 residential units (consistent with the City's Housing Element), up to 82,000 square feet of commercial uses, and up to 35,000 square feet of public/civic uses. The Project will include adoption of amendments to the City's General Plan and Zoning Ordinance, changing certain existing land use designations in the Plan Area, creating new zoning districts, and updating existing or establishing new development standards to replace some of the current zoning provisions applicable to the Plan Area.

Location: The Project is located in the City of Scotts Valley in southeast portion of Skypark, which is now a public park and open space. The Plan area is roughly bound by Blue Bonnet Lane and Kings Village Road to the north, an existing residential

Taylor Bateman
City of Scotts Valley
June 3, 2025
Page 4

neighborhood (Hidden Oaks Condominiums) to the east, Mt. Hermon Road to the south, Skypark Drive to the west, and Skypark to the northwest.

Timeframe: 2045

The CEQA Guidelines (§§15124 & 15378) require that the draft EIR incorporate a full Project description, including reasonably foreseeable future phases of the Project, and that contains sufficient information to evaluate and review the Project's environmental impact. Please include a complete description of the following Project components in the Project description including but not limited to the below information.

- Land use changes resulting from, for example, rezoning certain areas.
- Footprints of permanent Project features and temporarily impacted areas, such as staging areas and access routes.
- Area and plans for any proposed buildings/structures, ground disturbing activities, fencing, paving, stationary machinery, landscaping, and stormwater systems.
- Operational features of the Project, including level of anticipated human presence (describe seasonal or daily peaks in activity, if relevant), artificial lighting/light reflection, noise, traffic generation, and other features.
- Construction schedule, activities, equipment, and crew sizes.

ENVIRONMENTAL SETTING

Sufficient information regarding the environmental setting is necessary to understand any potentially significant impacts on the environment of the proposed Project and any alternatives identified in the draft EIR (CEQA Guidelines, §§15125 & 15360). CDFW recommends the draft EIR provide baseline habitat assessments for special-status plant, fish and wildlife species located and potentially located within the Project area and surrounding lands, including all rare, threatened, and endangered species (CEQA Guidelines, §15380). The draft EIR should describe aquatic habitats, such as wetlands or waters of the U.S. or State, and any sensitive natural communities or riparian habitat occurring on or adjacent to the Project site (for sensitive natural communities see: <https://wildlife.ca.gov/Data/VegCAMP/NaturalCommunities#sensitive%20natural%20communities>), and any stream or wetland set back distances the City may require. Fully protected, threatened or endangered, candidate, and other special-status species or sensitive natural communities that are known to occur, or have the potential to occur in or near the Project site, include, but are not limited to:

Taylor Bateman
 City of Scotts Valley
 June 3, 2025
 Page 5

Common Name	Scientific Name	Status
Santa Cruz kangaroo rat	<i>Dipodomys venustus venustus</i>	SSC
Santa Cruz wallflower	<i>Erysimum teretifolium</i>	CRPR 1B.1
Mount Hermon June beetle	<i>Polyphylla barbata</i>	FE
Choris' popcornflower	<i>Plagiobothrys chorisianus var. chorisianus</i>	CRPR 1B.2
Zayante winged grasshopper	<i>Trimerotropis infantilis</i>	FE
Nesting birds Bats Rare plants Other aquatic and riparian species		
Notes: FE = listed as endangered under the federal Endangered Species Act; SSC = state species of special concern; CRPR = California Rare Plant Rank.		

Habitat descriptions and species profiles included in the draft EIR should include robust information from multiple sources: aerial imagery; historical and recent survey data; field reconnaissance; scientific literature and reports; U.S. Fish and Wildlife Service’s (USFWS) Information, Planning, and Consultation System; California Aquatic Resources Inventory; and findings from “positive occurrence” databases such as California Natural Diversity Database (CNDDDB). Only with sufficient data and information can the City adequately assess which special-status species are likely to occur in the Project vicinity.

CDFW recommends surveys be conducted for special-status species with potential to occur, following recommended survey protocols if available. Survey and monitoring protocols and guidelines are available at:

<https://www.wildlife.ca.gov/Conservation/Survey-Protocol>.

Botanical surveys for special-status plant species, including those listed by the California Native Plant Society (<http://www.cnps.org/cnps/rareplants/inventory/>), should also be conducted during the blooming period for all sensitive plant species potentially occurring within the Project area and include the identification of reference populations. Please refer to CDFW protocols for surveying and evaluating impacts to rare plants available at: <https://www.wildlife.ca.gov/Conservation/Plants>.

Taylor Bateman
City of Scotts Valley
June 3, 2025
Page 6

IMPACT ANALYSIS AND MITIGATION MEASURES

The CEQA Guidelines (§15126.2) necessitate the draft EIR discuss all direct and indirect impacts (temporary and permanent) that may occur with implementation of the Project. This includes evaluating and describing impacts such as:

- Land use changes that would reduce open space or agricultural land uses and increase residential or other land use involving increased development;
- Potential for impacts to special-status species;
- Loss or modification of breeding, nesting, dispersal and foraging habitat, including vegetation removal, alternation of soils and hydrology, and removal of habitat structural features (e.g., snags, roosts, overhanging banks);
- Permanent and temporary habitat disturbances associated with ground disturbance, noise, lighting, reflection, air pollution, traffic or human presence; and
- Obstruction of movement corridors, fish passage, or access to water sources and other core habitat features.
- Water quality impacts resulting from construction and operation of the Project;
- Impacts both from construction and operation of the Project;
- Impacts to the bed, channel, and bank, in the reservoirs and creeks downstream of the Project; and
- Impacts to bed, channel, bank, and riparian habitat, and the direct and indirect effects to fish, wildlife, and their habitat

The CEQA document also should identify existing and reasonably foreseeable future projects in the Project vicinity, disclose any cumulative impacts associated with these projects, determine the significance of each cumulative impact, and assess the significance of the Project's contribution to each impact (CEQA Guidelines, §15355). Although a project's impacts may be insignificant individually, its contributions to a cumulative impact may be considerable; a contribution to a significant cumulative impact (e.g., reduction of available habitat for a listed species) should be considered cumulatively considerable without mitigation to minimize or avoid the impact.

The CEQA Guidelines direct the City, as the lead agency, to consider and describe in the draft EIR all feasible mitigation measures to avoid and/or mitigate potentially significant impacts of the Project on the environment based on comprehensive analysis

Taylor Bateman
City of Scotts Valley
June 3, 2025
Page 7

of the potential direct, indirect, and cumulative impacts of the Project. (CEQA Guidelines, §§ 15021, 15063, 15071, 15126.2, 15126.4 & 15370.) This should include a discussion of take avoidance and minimization measures for special-status species, which are recommended to be developed in early consultation with the USFWS, the National Marine Fisheries Service and CDFW. These measures can then be incorporated as enforceable Project conditions to reduce potential impacts to biological resources to less-than-significant levels.

Fully protected species such as may not be taken or possessed at any time except in limited circumstances (Fish & G. Code, §§ 3511, 4700, 5050, & 5515). Therefore, the draft EIR should include measures to completely avoid take of fully protected species.

COMMENTS AND RECOMMENDATIONS

Based on the information provided in the NOP. CDFW offers the comments and recommendations below to assist the City in adequately identifying and/or mitigating the Project's significant, or potentially significant, direct and/or indirect impacts on fish and wildlife (biological) resources. **These comments and recommendations are not an exhaustive list and CDFW may provide additional recommendations as more Project specific information is disclosed. The draft EIR must include a full Project Description, Environmental Setting, and Impact Analysis and Mitigation Measures as outlined above.** Editorial comments or other suggestions may also be included to improve the document.

COMMENT 1: Impervious surfaces

Issue: The Project could increase impervious surfaces at the Project site with the addition of roads and buildings. Impervious surfaces, stormwater systems, and storm drain outfalls have the potential to significantly affect fish and wildlife resources by altering the hydrograph of natural streamflow patterns via concentrated run-off.

Evidence impact would be significant: Urbanization (e.g., impervious surfaces, stormwater systems, storm drain outfalls) can modify natural streamflow patterns by increasing the magnitude and frequency of high flow events and storm flows (Hollis 1975, Konrad and Booth 2005).

Recommendations to minimize significant impacts: CDFW recommends that storm runoff be dispersed rather than concentrated to a stormwater outfall or other receiving waters. CDFW recommends implementation of low impact development (LID) and the use of bioswales and bioretention features to intercept storm runoff. CDFW also recommends incorporating permeable surfaces throughout the Project to allow stormwater to percolate in the ground and prevent stream hydromodification (Evaluating the potential benefits of permeable pavement on the quantity and quality of stormwater runoff, <https://www.usgs.gov/centers/upper-midwest-water-science->

Taylor Bateman
City of Scotts Valley
June 3, 2025
Page 8

[center/science/evaluating-potential-benefits-permeable-pavement?qt-science_center_objects=0#qt-science_center_objects.](#))

COMMENT 2: Noise

Issue: Site operations may result in a substantial amount of noise through road use, construction equipment, and other project-related activities. This may adversely affect nesting birds and other wildlife species in several ways as wildlife responses to noise can occur at exposure levels of only 55-60 decibels (dB, Barber et al. 2009). For reference, normal conversation is approximately 60 dB, and natural ambient noise levels are generally measured at less than 50 dB.

Evidence impact would be significant: Anthropogenic noise can disrupt the communication of many wildlife species including frogs, birds, and bats (Sun and Narins 2005, Patricelli and Blickley 2006, Gillam and McCracken 2007, Slabbekoorn and Ripmeester 2008). Noise can also affect predator-prey relationships as many nocturnal animals such as bats and owls primarily use auditory cues (i.e., hearing) to hunt. Additionally, many prey species increase their vigilance behavior when exposed to noise because they need to rely more on visual detection of predators when auditory cues may be masked by noise (Rabin et al. 2006, Quinn et al. 2017). Noise has also been shown to reduce the density of nesting birds (Francis et al. 2009) and cause increased stress that results in decreased immune responses (Kight and Swaddle 2011).

Recommended Measure 1: CDFW recommends including the following work restriction measure to restrict use of equipment to hours least likely to disrupt wildlife:

1. Work shall be restricted to daylight hours, one hour after sunrise to sunset.

Recommended Measure 2: CDFW recommends including the following Measures, if Project activities might occur during nesting bird season:

1. *Nesting Birds.* If Project activities will occur during nesting bird season (February 15 to September 15 for raptors; March 15 to August 30 for non-raptors), the Qualified Biologist shall conduct a focused survey for active nests within **5 days** prior to the initiation of Project-related activities. Surveys shall be conducted in all suitable habitat located at Project work sites and in staging and storage areas. The minimum survey radii surrounding the work area shall be the following: (1) **250 feet** for non-raptors; (2) **1,000 feet** for raptors;
2. *Active Nest Protections.* If active nests are found, the Qualified Biologist shall observe any identified active nests prior to the start of any construction-related activities to establish a behavioral baseline of the adults and any nestlings. Once work commences, all active nests shall be regularly monitored by the Qualified

Taylor Bateman
City of Scotts Valley
June 3, 2025
Page 9

Biologist for a minimum of **two (2)** consecutive days to detect any signs of disturbance and behavioral changes as a result of the Project. In addition to direct impacts, such as nest destruction, nesting birds might be affected by noise, vibration, odors and movement of workers or equipment. Abnormal nesting behaviors which may cause reproductive harm include, but are not limited to, defensive flights/vocalizations directed towards project personnel, standing up from a brooding position, and flying away from the nest. If signs of disturbance and behavioral changes are observed, work shall halt, and the Qualified Biologist shall either halt work until the nest is no longer active and increase protective buffer zones (see Mitigation Measure 3 below);

3. *Active Nest Buffers.* Active nest sites and protective buffer zones shall be designated as Ecologically Sensitive Areas (ESAs), where no Project-related activities may occur and no personnel may enter. These ESAs shall be maintained (while occupied, or longer for multi-clutch and annually returning species such as raptors) during Project activities with the establishment of a fence barrier or flagging surrounding the nest site. Buffers shall remain in place throughout Project activities or until the nest becomes inactive, whichever comes first; and
4. *Bird Protections During Vegetation Removal.* To the maximum extent possible, vegetation shall not be removed between **February 15 to September 15** to avoid impacts to nesting birds

COMMENT 3: Artificial Lighting

Issue: The Project has the potential to increase artificial lighting from the addition of buildings and other development. Artificial lighting often results in light pollution, which has the potential to significantly and adversely affect fish and wildlife.

Evidence the impact would be significant: Night lighting can disrupt the circadian rhythms of wildlife species. Many species use photoperiod cues for communication such as bird song (Miller, 2006), determining when to begin foraging (Stone et al., 2009), behavior thermoregulation (Beiswenger, 1977), and migration (Longcore and Rich, 2004).

Recommendations to minimize significant impacts: CDFW recommends eliminating all non-essential artificial lighting. If artificial lighting is necessary, CDFW recommends avoiding or limiting the use of artificial lights during the hours of dawn and dusk, when many wildlife species are most active. CDFW also recommends that outdoor lighting be shielded, cast downward, and does not spill over onto other properties or upwards into the night sky (see the International Dark-Sky Association standards at <http://darksky.org/>) and limited to warm light colors with an output temperature of 2700 kelvin or less.

Taylor Bateman
City of Scotts Valley
June 3, 2025
Page 10

COMMENT 4: Fencing

Issue: The Project has the potential to build temporary and/or permanent fences that can impede movement of wildlife.

Evidence the impact would be significant: Fencing can be a hazard to wildlife causing entanglement and mortality (Van der Ree 1999, Stuart et al. 2001, Harrington and Conover 2006).

Recommendation to minimize significant impacts: CDFW recommends that if fencing is built, the Project use wildlife friendly fencing.

ENVIRONMENTAL DATA

CEQA requires that information developed in environmental impact reports and negative declarations be incorporated into a database which may be used to prepare subsequent CEQA documents or to make supplemental environmental determinations. (Pub. Resources Code, § 21003, subd. (d) & (e).) Accordingly, please report any special-status species and natural communities detected during Project surveys to the CNDDDB. The CNDDDB field survey form can be filled out and submitted online here: <https://wildlife.ca.gov/Data/CNDDDB/Submitting-Data>. The types of information reported to CNDDDB can be found here: <https://www.wildlife.ca.gov/Data/CNDDDB/Plants-and-Animals>.

ENVIRONMENTAL DOCUMENT FILING FEES

CDFW anticipates that the proposed Project, will have an impact on fish and/or wildlife, and assessment of environmental document filing fees is necessary. Fees are payable upon filing of the Notice of Determination by the Lead Agency and serve to help defray the cost of environmental review by CDFW. Payment of the environmental document filing fee is required in order for the underlying project approval to be operative, vested, and final. (See Cal. Code Regs, tit. 14, § 753.5; Fish & G. Code, § 711.4; Pub. Resources Code, § 21089.)


CONCLUSION

CDFW appreciates the opportunity to comment on the NOP in order to assist the City in identifying and mitigating Project impacts on biological resources.

Questions regarding this letter or further coordination should be directed to Alexis Harrison, Environmental Scientist, at (707) 815-2779 or Alexis.Harrison@Wildlife.ca.gov; or Wesley Stokes, Senior Environmental Scientist (Supervisory), at (707) 339-6066 or Wesley.Stokes@wildlife.ca.gov.

Taylor Bateman
City of Scotts Valley
June 3, 2025
Page 11

Sincerely,

DocuSigned by:

Erin Chappell
B77E9A6211EF486
Erin Chappell
Regional Manager
Bay Delta Region

ec: Office of Planning and Research, State Clearinghouse, Sacramento

REFERENCES

- Barber, J. R., K. R. Crooks, and K. M. Fristrup. 2009. The costs of chronic noise exposure for terrestrial organisms. *Trends in Ecology and Evolution* 25:180–189.
- Beiswenger, R. E. 1977. Diet patterns of aggregative behavior in tadpoles of *Bufo americanus*, in relation to light and temperature. *Ecology* 58:98–108.
- Francis, C. D., C. P. Ortega, and A. Cruz. 2009. Noise pollution changes avian communities and species interactions. *Current Biology* 19:1415–1419.
- Gillam, E. H., and G. F. McCracken. 2007. Variability in the echolocation of *Tadarida brasiliensis*: effects of geography and local acoustic environment. *Animal Behaviour* 74:277–286.
- Harrington, J. L., and M. R. Conover. 2006. Characteristics of ungulate behavior and mortality associated with fences. *Wildlife Society Bulletin* 34:1295–1305.
- Hollis, G. 1975. The effect of urbanization on floods of different recurrence interval. *Water Resources Research* 11:431-435.
- Kight, C. R., and J. P. Swaddle. 2011. How and why environmental noise impacts animals: An integrative, mechanistic review. *Ecology Letters* 14:1052–1061.
- Konrad, C.P. and D.B. Booth. 2005. Hydrologic changes in urban streams and their ecological significance, paper presented at American Fisheries Society Symposium, American Fisheries Society.
- Longcore, T., and C. Rich. 2004. Ecological light pollution - Review. *Frontiers in Ecology and the Environment* 2:191–198.
- Miller, M. W. 2006. Apparent effects of light pollution on singing behavior of American robins. *The Condor* 108:130–139.
- Patricelli, G., and J. J. L. Blickley. 2006. Avian communication in urban noise: causes and consequences of vocal adjustment.

Taylor Bateman
City of Scotts Valley
June 3, 2025
Page 12

Auk 123:639–649.

Quinn, J. L., M. J. Whittingham, S. J. Butler, W. Cresswell, J. L. Quinn, M. J. Whittingham, S. J. Butler, W. Cresswell, and W. Noise. 2017. Noise, predation risk compensation and vigilance in the chaffinch *Fringilla coelebs*. *Journal of Avian Biology* 37:601–608.

Rabin, L. A., R. G. Coss, and D. H. Owings. 2006. The effects of wind turbines on antipredator behavior in California ground squirrels (*Spermophilus beecheyi*). *Biological Conservation* 131:410–420.

Slabbekoorn, H., and E. A. P. Ripmeester. 2008. Birdsong and anthropogenic noise: Implications and applications for conservation. *Molecular Ecology* 17:72–83.

Stone, E. L., G. Jones, and S. Harris. 2009. Street lighting disturbs commuting bats. *Current Biology* 19:1123–1127. Elsevier Ltd.

Stuart, J. N., M. L. Watson, T. L. Brown, and C. Eustice. 2001. Plastic netting: An entanglement hazard to snakes and other wildlife. *Herpetological Review* 32:162–164.

Sun, J. W. C., and P. M. Narins. 2005. Anthropogenic sounds differentially affect amphibian call rate. *Biological Conservation* 121:419–427.

Van der Ree, R. 1999. Barbed wire fencing as a hazard for wildlife. *The Victorian Naturalist* 116:210–217.